

Table S1. Summarized synoptic table derived from 95 relevés of serpentine forest communities from Poland. The positive Φ coefficient values (multiplied by 100) and percentage frequency as superscripts are presented. Species diagnostic for one cluster ($\Phi \geq 30$, constancy ≥ 20 and constancy ratio >1.5) are shaded in grey.

Group No.	Asp – Pin	Gal – Q	Mol – Pin	Til – Car
No. of relevés	18	37	12	28
Ass. <i>Asplenio cuneifolii</i> - <i>Pinetum sylvestris</i>				
<i>Viscaria vulgaris</i>	77.6 ⁸⁹	--- ²⁴	--- [.]	--- [.]
<i>Pimpinella saxifraga</i>	73.6 ⁷⁸	--- [.]	--- ¹⁷	--- [.]
<i>Thymus pulegioides</i>	69.6 ⁵⁶	--- [.]	--- [.]	--- [.]
<i>Achillea millefolium</i>	68.1 ⁹⁴	7.0 ⁴³	--- ⁸	--- ⁴
<i>Robinia pseudoacacia</i>	65.5 ⁵⁰	--- [.]	--- [.]	--- [.]
<i>Potentilla arenaria</i>	61.2 ⁴⁴	--- [.]	--- [.]	--- [.]
<i>Asplenium cuneifolium</i>	58.1 ⁵⁰	--- ⁸	--- [.]	--- [.]
<i>Hieracium pilosella</i>	56.8 ³⁹	--- [.]	--- [.]	--- [.]
<i>Festuca ovina</i>	53.3 ⁸⁹	--- ³²	--- ³³	--- ¹⁸
<i>Danthonia decumbens</i>	52.2 ³³	--- [.]	--- [.]	--- [.]
<i>Galium verum</i>	51.1 ⁸⁹	20.0 ⁶²	--- ²⁵	--- ⁴
<i>Centaurea scabiosa</i>	47.3 ²⁸	--- [.]	--- [.]	--- [.]
<i>Rumex acetosella</i>	47.3 ²⁸	--- [.]	--- [.]	--- [.]
<i>Centaurea stoebe</i>	47.3 ²⁸	--- [.]	--- [.]	--- [.]
<i>Phleum phleoides</i>	47.3 ²⁸	--- [.]	--- [.]	--- [.]
<i>Campanula rotundifolia</i>	44.8 ⁷²	--- ³⁵	--- ³³	--- [.]
<i>Calamagrostis epigeios</i>	44.0 ⁶¹	--- ¹¹	7.9 ³³	--- ⁴
<i>Koeleria macrantha</i>	42.0 ²²	--- [.]	--- [.]	--- [.]
<i>Pyrus pyraister</i>	38.8 ³³	3.2 ¹⁴	--- [.]	--- [.]
<i>Dianthus carthusianorum</i>	38.2 ²²	--- ³	--- [.]	--- [.]
<i>Euphorbia cyparissias</i>	37.7 ⁶¹	18.8 ⁴⁶	--- ¹⁷	--- [.]
<i>Filipendula vulgaris</i>	36.1 ¹⁷	--- [.]	--- [.]	--- [.]
<i>Hieracium murorum</i>	35.8 ⁴⁴	--- [.]	--- ¹⁷	--- ¹⁸
<i>Prunus avium</i>	32.2 ⁷⁸	--- ¹⁴	9.7 ⁵⁸	--- ⁵⁰
Comm. <i>Galium verum</i> – <i>Quercus petraea</i>				
<i>Convallaria majalis</i>	--- ⁶	64.9 ⁸⁴	--- ⁸	--- ²⁹
<i>Polygonatum odoratum</i>	--- [.]	63.8 ⁶⁵	--- ¹⁷	--- [.]
<i>Lathyrus niger</i>	--- [.]	55.9 ⁵⁴	--- ⁸	--- ⁷
<i>Campanula persicifolia</i>	--- ¹¹	54.2 ⁵¹	--- [.]	--- ⁴
<i>Melica nutans</i>	--- ¹⁷	52.9 ⁵⁹	--- [.]	--- ¹¹
<i>Lilium martagon</i>	--- [.]	49.1 ³⁰	--- [.]	--- [.]
<i>Lathyrus vernus</i>	--- [.]	48.1 ⁴⁶	1.6 ¹⁷	--- [.]
<i>Sedum maximum</i>	10.5 ²⁸	48.1 ⁵⁴	--- [.]	--- [.]
<i>Vincetoxicum hirundinaria</i>	--- ⁶	47.7 ³⁵	--- [.]	--- [.]
<i>Fallopia dumetorum</i>	1.5 ²²	46.5 ⁵⁴	--- ⁸	--- [.]
<i>Anthericum ramosum</i>	--- [.]	41.4 ²²	--- [.]	--- [.]
<i>Linaria vulgaris</i>	--- [.]	41.4 ²²	--- [.]	--- [.]
<i>Rhamnus catharticus</i>	--- [.]	41.4 ²²	--- [.]	--- [.]
<i>Dryopteris filix-mas</i>	--- ¹¹	38.8 ⁵¹	--- ⁸	--- ²¹
<i>Agropyron repens</i>	--- ¹⁷	38.4 ⁴¹	--- [.]	--- ⁷
<i>Galium boreale</i>	--- ⁶	37.0 ²⁴	--- [.]	--- [.]

<i>Euonymus europaea</i>	---	35.6 ¹⁶	---	---
<i>Mercurialis perennis</i>	---	35.6 ¹⁶	---	---
<i>Poa nemoralis</i>	--- ³⁹	35.1 ⁹²	--- ⁵⁸	--- ⁶¹
<i>Genista tinctoria</i>	13.0 ²²	34.3 ³⁵	---	---
<i>Galeopsis ladanum</i>	---	32.4 ¹⁴	---	---
<i>Serratula tinctoria</i>	---	32.4 ¹⁴	---	---
<i>Urtica dioica</i>	---	31.8 ²⁴	---	4.0 ¹¹
<i>Galium schultesii</i>	---	30.0 ¹⁶	---	--- ⁴

Comm. *Molinia caerulea* – *Pinus sylvestris*

<i>Larix decidua</i>	--- ¹⁷	---	53.5 ⁶⁷	---	7
<i>Rubus hirtus</i> agg.	---	---	44.6 ⁵⁰	8.1 ²⁵	
<i>Pseudoscleropodium purum</i>	--- ⁶	---	37.7 ²⁵	---	
<i>Dryopteris carthusiana</i>	---	9.5 ⁵¹	37.1 ⁷⁵	3.8 ⁴⁶	
<i>Vicia cassubica</i>	---	---	36.1 ¹⁷	---	
<i>Pinus sylvestris</i>	27.6 ⁹⁴	--- ⁷⁰	34.8 ¹⁰⁰	---	29
<i>Betula pendula</i>	3.0 ²⁸	---	32.5 ⁵⁰	---	11
<i>Senecio ovatus</i>	--- ⁶	---	31.5 ²⁵	---	4
<i>Deschampsia flexuosa</i>	--- ⁶⁷	---	30.9 ¹⁰⁰	6.1 ⁸²	

Ass. *Tilio cordatae*-*Carpinetum betuli*

<i>Festuca altissima</i>	---	---	---	44.7 ⁵⁰	
<i>Atrichum undulatum</i>	---	---	---	41.1 ²⁵	
<i>Luzula luzuloides</i>	--- ¹⁷	10.4 ⁷³	12.8 ⁷⁵	34.3 ⁹³	
<i>Dicranella heteromalla</i>	---	---	---	33.8 ²⁹	
<i>Maianthemum bifolium</i>	---	---	22.7 ³³	31.6 ³⁹	
<i>Tilia cordata</i>	---	---	---	31.6 ²⁹	

Other species

<i>Fagus sylvatica</i>	--- ¹⁷	---	12.8 ⁴²	27.6 ⁵⁴	
<i>Polytrichastrum formosum</i>	--- ²²	---	4.5 ³³	25.5 ⁵⁰	
<i>Frangula alnus</i>	--- ³³	---	25.5 ⁵⁸	19.8 ⁵⁴	
<i>Vaccinium myrtillus</i>	--- ⁵⁰	---	28.6 ¹⁰⁰	18.2 ⁹³	
<i>Melampyrum pratense</i>	--- ²²	---	11.6 ⁴²	17.4 ⁴⁶	
<i>Impatiens parviflora</i>	--- ⁶	13.0 ³⁵	---	13.8 ³⁶	
<i>Corylus avellana</i>	18.3 ⁴⁴	---	4.3 ³³	11.8 ³⁹	
<i>Calamagrostis arundinacea</i>	--- ³³	28.2 ⁸⁹	---	10.9 ⁷⁵	
<i>Milium effusum</i>	--- ⁶	---	12.2 ¹⁷	---	11
<i>Brachypodium sylvaticum</i>	13.7 ²²	---	4.5 ¹⁷	---	14
<i>Quercus petraea</i>	--- ¹⁰⁰	---	---	---	100
<i>Hypnum cupressiforme</i>	--- ³⁹	---	11.9 ⁵⁸	---	46
<i>Sorbus aucuparia</i>	--- ⁸³	---	21.1 ¹⁰⁰	---	86
<i>Moehringia trinervia</i>	--- ²⁸	15.5 ⁵⁷	7.6 ⁵⁰	---	39
<i>Stellaria media</i>	--- ¹¹	26.5 ⁴⁶	---	---	21
<i>Galium rotundifolium</i>	19.4 ⁵⁰	---	---	---	29
<i>Viola reichenbachiana</i>	1.4 ¹⁷	---	14.6 ²⁵	---	11
<i>Lactuca muralis</i>	--- ²²	---	27.7 ⁵⁸	---	29
<i>Rubus fruticosus</i> agg.	17.9 ⁸³	---	17.9 ⁸³	---	61
<i>Rubus idaeus</i>	--- ¹⁷	29.3 ⁶⁵	11.8 ⁵⁰	---	29
<i>Rosa canina</i>	25.9 ⁵⁶	1.0 ³⁵	---	---	21
<i>Geranium robertianum</i>	--- ⁶	26.5 ³⁰	4.7 ¹⁷	---	4
<i>Veronica officinalis</i>	--- ¹⁷	---	21.1 ³³	---	7

<i>Viola riviniana</i>	11.3 ⁵⁰	9.7 ⁴⁹	1.4 ⁴²	--- ²¹
<i>Potentilla alba</i>	3.1 ²²	25.6 ³⁸	--- ¹⁷	--- ⁴
<i>Brachypodium pinnatum</i>	12.2 ³³	14.6 ³⁵	1.0 ²⁵	--- ⁴
<i>Hypericum perforatum</i>	30.0 ⁵⁶	--- ³⁰	2.4 ³³	--- ⁷
<i>Silene vulgaris</i>	24.8 ⁶¹	26.1 ⁶²	--- ³³	--- ⁴
